

InteligenciaComputacional

Department of Computer Science
and Artificial Intelligence
Course 2019/2020



Course: Master Professional Computing
Quarter: one
Kind: required
No. credits: 3T + 3P

Course structure

- **Teachers**

- Miguel Delgado Calvo-Flores mdelgado@decsai.ugr.es

- Fernando Berzal Galiano fberzal@decsai.ugr.es

- **Responsible professor:** Miguel Delgado Calvo-Flores

Course structure

- The respective locations, e-mails and telephone numbers of teachers, are available and accessible

<http://decsai.ugr.es/index.php?p=profesores>

- Each and every one tutoring schedules are available and accessible <http://decsai.ugr.es>

BRIEF DESCRIPTION OF CONTENTS

This course presents the main paradigms

Computational Intelligence:

1. Logic and Fuzzy Systems
 2. Neural Networks,
 3. Algorithms and Evolutionary Computation,
 4. Algorithms based on swarm intelligence
 5. A review of applications of these paradigms.
- Fundamentals of Computational Biology.
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TEACHING METHODOLOGY

- Expository lectures.
- Problem resolution. practices
Laboratory.
- Resolution of practical cases. Project-based learning.
- Demonstrations and exhibitions.
- Presentation and discussion of protected works
- Lectures by professionals.
- Academic tutoring.

EVALUATION

- Theoretical part : Examinations, delivery activities, discussion of results. (40% of the final grade).
- Practical part Development of cases and projects, discussion of results. (40% of the final grade).
- Participation: Attendance at seminars, active participation in presentations, etc. (20% of the final grade).

EVALUATION

- Work and activities of each of the three major IC block will be made.
- Each party will be evaluated independently.
- media will be made with the three notes. To pass you must obtain 4 points or more in each part

Bibliography

FUNDAMENTAL BIBLIOGRAPHY:

- AP Engelbrecht, Computational Intelligence. An Introduction Second Edition. *J. Wiley, (2007).*
- L. Rutkowski, Computational Intelligence: Methods and Techniques. *Springer Verlag (2008).*
- Amit Konar; Computational Intelligence. Principles, Techniques and Applications. *Springer Verlag. (2005)*
- J. Pérez Muñoz, Computational Intelligence inspired life, *PublicacionesUMA Service (2010).*
<http://riuma.uma.es/>

links

- <http://decsai.ugr.es>
- <http://www.aaai.org>
- www.aisb.org.uk
- <http://www.lsi.upc.edu/atica/>
- <https://sites.google.com/site/tc3023/apuntes>
- [http://www.unidaddebiofisica.org/juanma/apuntes.htm # 1](http://www.unidaddebiofisica.org/juanma/apuntes.htm#1)

links

- <http://www.it.uc3m.es/rcrespo/docencia/irc/http://www.um.es/molecula/anucl03.htm>
- <http://www.dma.fi.upm.es/java/fuzzy/tutfuzzy/indice.html>
- <http://www.youtube.com/watch?v=OP57M2Xz9QM>
- <http://www.youtube.com/watch?v=mgnzX5a5glo>